The Macdonald FARM Journal

MASTERY FOR SERVICE

MARCH 1963

THE MACDONALD LASSIE

MARKET OUTLOOK ECONOMIC INDICATORS

Indicator		1949	1961	1962
Indicator	**1949**	**1961**	**1962**	
Index of Industrial Production, Canada, October	100	173	189	
Labour Income, Canada, November	100	203	216	
Consumer Price Index, Food, Montreal, December	100	132	134	
Cash Farm Income, Quebec, January-December, Millions	2,430	2,953	3,081	
Net Farm Income, Quebec, Annual, Millions	204	195	195	(est.)
Farm Prices, Quebec, February	100	105 (1963)	106	(1963)
Cost of Goods and Services Used by Farmers, E. Canada August	100	141	145	
Farm Price of Milk for Ice Cream and Concentration, Quebec, Dollars per Cwt., November	$2.67	$2.86	$2.84	
Price Canada A Hogs, Montreal, February 21	$28.68	$28.50(1963)	$28.50	(1963)
Price Good Steers, Montreal, February 21	$30.10	$30.50(1963)	$23.60	(1963)

Community Pastures

The wave of interest in the development of community pastures in the Province of Quebec is most gratifying. Almost as soon as the Agricultural Rehabilitation and Development Programme (ARDA) was announced interest turned toward the opportunity of making pastures an important part of this programme. These pastures, dating back to the mid 1930's, have become an important part of the Prairie Farm Rehabilitation Programme, and are used in a modest way in Nova Scotia in connection with the Maritime Marshland Rehabilitation Programme.

But they may have a more important place in Quebec than in either the Prairies or the Maritimes. In Quebec they offer an opportunity for meeting the grave difficulties imposed by the traditional small size of farms. They also afford an opportunity to adapt farms of 100 acres and even less toward beef — thus alleviating in some measure the surplus problem in the dairy industry.

Studies are proceeding at the College which are expected to show a very substantial increase in incomes for farmers who would make the transition from dairy cattle to beef or sheep by way of community pastures.

With good land and good cropping practices, a Quebec farm of 100 acres can support a herd of up to 50 cows provided summer grazing is available in community pasture areas. Incomes on a 50 cow beef herd with average price and costs are far in excess of returns from 15-20 cow dairy herd. Every encouragement should be given to ARDA community councils and to research agencies to study this matter.

College News

Fourteen students in the Diploma Agriculture class will graduate from Macdonald on the 29th of March. Guest speaker at their graduation banquet will be Dr. J. D. MacLachlan, President of the Federated Colleges, Ontario Department of Agriculture, Guelph. Students who have completed their Diploma Course are:

EDNIE, Donald S.
Franklin Centre, P.Q.
HOLDERNESS-RODDAM, Robart C..
Roddam Hall, Wooperton, Alnwick, Northumberland, En.
McCLATCHIE, Kenneth A.
Box 391, Huntingdon, P.Q.
McEWEN, Wallace R.
234 Regent Ave., St. Eustache sur le lac, P.Q.
MAHON, Michael C.
Lion Castle, Barbados, W.I.
MINJA, Marco Daniel
Ashira-Narangu, Kibo-Moshi, Kilimanjaro, Tanganyika.
MWENDA, Shaaban Hemedi
Usangi, Ngujini, Via Moshi, Tanganyika.
PARKINSON, Robert D.
933 Morgan Rd., Rawdon, P.Q.
SHACKE, Samuel
R. R. 1, Sweetsburg, P.Q.
SHUFELT, Harris
East Farnham, P.Q.
SPROULE, James Harley
R. R. 1, Ormstown, P.Q.
TOBIN, John
38 Surrey Drive, Town of Mount Royal, P.Q.
VAN LIEROP, Wm. J. C. M.
West Brome, P.Q.
WEBSTER, Peter W.
4310 Montrose Ave., Montreal 6, P.Q.

Mr. Brad Walsh, a former editor of the Journal and a past Registrar of Macdonald has been appointed Chief Admissions Officer of McGill University. The Canadian Farm Writers Federation, representing the farm press in Canada will be guests of the College on April 9th and 10th. With the French farm writers they will tour various departments of the college and will be hosted to a sugaring-off party in the Morgan Arboretum.

Nineteen professors from Laval Universities' Faculty of Agriculture in Quebec City spent March 7th as guests of Macdonald College. The visitors, led by Dean Roland Poirier, discussed current agricultural research and the teaching students in agriculture.

INSIDE . . .

THE WIND WAS WHISTLING around the Peace Tower in Ottawa as the carillon bonged out the twelve noon chimes. It was a normal February day for the Peace Tower but not such a normal day for the seventy five delegates attending the first Canadian Dairy Conference in Ottawa.

The dairy industry in Canada is a complex one. The Federal government, provincial governments, farmers, distributors, and in many cases the municipal governments all have a say in determining the price, quality standards, and other aspects of marketing milk. All these combined with price support programs, consumer subsidies and export demands add up to one of the most confusing, complicated, political messes Canadian farmers have experienced in recent years.

To attempt to find a solution to this dairy dilemma, Canada's Minister of Agriculture, Hon. Alvin Hamilton, suggested that a conference of leaders in the dairy industry be held to discuss "issues and policies for the dairy industry."

The "in-camera" conference was called for February 20 and 21 in Ottawa. Seventy five delegates representing farm organizations, governments, and dairy processors hung up their hats and coats and sat down to what appears to be an unproductive two days of talk. Since the conference was "in-camera", the mass media never did find out what went on. The only press communique issued stated that the conference recommended the formation of a Canadian Dairy Advisory Committee to "Consult and advise Federal and Provincial governments and industry groups concerned with dairy policy and programs on any aspect of dairy policy."

This committee should be appointed shortly and should present a concrete national dairy policy for Canadian farmers by May 1st. No doubt, this committee, when appointed, would like guidance about what could be done to improve the Canadian dairy situation. With this in mind here are some suggestions:

1. Change the emphasis in support price from butter to skim milk powder. If skim milk were supported at 12 cents, then the butter price support could be reduced by 6 cents. This would not affect farmers' incomes and it would save 20 million dollars on the present consumer subsidy on butter.
2. Encouragement should be provided to aid dairy farmers to change to beef or other enterprises. Such encouragement could be in the form of:
   a. free artificial insemination service from beef bulls for dairy cows;
   b. development of community pastures;
   c. maintenance of stricter sanitary standards. This would eliminate many dairy farms, particularly on the Prairies. If the number of small dairy herds (six cows producing milk for cream factories as a source "egg money") were reduced, then the butterfat surplus would be reduced. There is little need to protect these farmers' incomes since their so-called dairy enterprise is generally one of many sources of income from their farms. The fact still remains, however, that a political vote from one of these farmers is as valuable as a vote from a larger scale dairy farmer.
3. Surplus fluid milk should be pooled from where it could be diverted to produce dairy products that are more in demand, e.g. cheese.
4. Serious consideration should be given to a national school milk program financed by farmers, the milk distribution industry and provincial and federal governments.

If these suggestions could be suggested by the Canadian Dairy Advisory Committee and adopted by government, combined with an eventual system of selling milk on the basis of protein rather than on the basis of butterfat, then the dairy problem in Canada would be well on the way to solution.

Let us hope, for the benefit of all Canadians, that the Dairy Advisory Committee, when appointed, will make some definite recommendations and even more important, that the government will accept them. This must be done by May 1st this year. If recommendations are forthcoming then the committee will have done what the February Dairy Conference should have done. In any event, the most urgent problem is to have a concrete dairy policy for 1963.

Next month . . .

We look at careers in agriculture, home economics and education in the next issue of the Journal. How much does it cost to go to college today? Where can you get financial assistance? What are the entrance requirements? What can you study at college? These are the questions we'll attempt to answer next month. In addition, we'll hear from former graduates about what they do and where they are located. Tell the young people in your community about this special issue on careers planned for next month.

MARK WALDRON

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The Macdonald FARM Journal

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ADVERTISERS INDEX

P is for PASTURE

WITH UPWARDS of three million acres in Quebec listed in the Census as pasture it is obvious that grassland is a very important segment of the crop production figure on the average farm in this Province. While the Census indicates that these are improved pastures, nevertheless, the word improved has a very broad meaning. In a recent survey conducted by the Agronomy Department at Macdonald College we defined improved pastures as ones which had been seeded to a specific pasture mixture and handled as pasture within the last five years. On this basis only five per cent of the pastures surveyed qualified as improved — is yours in the five per cent group or outside in the ninety-five.

It is all well and good to suggest elaborate programmes for pasture improvement, but do they in fact affect an increase in production. Control experiments conducted on natural pastures, — that is a pasture area which is being grazed but which was not heeded to a specific pasture mixture within the last ten years — have shown that such natural pastures produce between twelve and fifteen hundred pounds of dry matter per acre during the grazing season, this can obviously vary considerably depending upon the season. Such a dry matter production probably represents about a thousand to twelve hundred pounds of milk per acre per grazing season.

Adjacent to these natural pasture areas we established improved pastures, these were areas which were ploughed, fertilized, seeded to a pasture mixture and subsequently handled as pasture on a rotational grazing programme. In these areas, the production in the first year after establishment was in excess of six thousand pounds of dry matter per acre per grazing season, on one site it in fact exceeded eight thousand pounds not only did we get an increase in forage production but we also got an improvement in quality. The grazing on the natural pasture contained less than five per cent legume, the grazing on the improved pasture contained upwards of fifty per cent legume. Our potential milk production from such an improved pasture is probably in the order of six thousand pounds of milk per acre during the grazing season — is this a worthwhile improvement?

Unfortunately, we cannot maintain this high level of production over a long period of time, our studies on pastures of a field scale, that is four — six acre units have shown that the production of the pasture dropped slightly each year so that at the end of four years, it has dropped to about thirty-five hundred pounds of dry matter, still much better than the natural pasture but much short of the maximum production, at this point, we plough the pasture and re-establish.

A permanent pasture is a will-o'-the-wisp — when we think we have permanent pastures we in fact have permanent nent pastures we in fact have permanent exercising grounds only. To maintain a high level of production on the pasture we must continuously fertilize and be prepared to plough and reseed every four or five years. In our experiments, we have completed one cycle of five years and are well into a second cycle, it may be possible as the programme advances to extend the life of an improved pasture form four years to maybe five or six.

There is nothing exotic in the kind of species that are used, certified seed of a recommended variety of timothy and Ladina clover form the basic mixture. The fertilizer programme does not contain a magic formula but recognizes the need of the legume for adequate supplies of phosphorus and potash, the legume will probably take care of the grass insofar as its nitrogen requirements are concerned.

Why be content with your present natural pasture when it may be possible to increase its producitivty three or four fold — the decision is yours — the satisfaction — your cows!

Soy Beans as a Crop?

HAVE YOU CONSIDERED growing soybeans? Trials by the Quebec Seed Board over the past 5 years at L'Assomption, St. Hyacinthe, Ste Martine and Macdonald College have shown that at least three varieties will mature and produce a good yield. Acme is the earliest variety and will mature in about 115 days and may yield 25 bushels of beans per acre. About 39 per cent by weight of the bean will be protein and 20 per cent will be oil making this a high value crop when sold or when used as home grown protein and energy supplement. Hardome and Merit are two varieties which will yield about ten bushels to the acre more than Acme but they require another ten days to mature and often do not mature before frost. The protein and oil content will be the same as Acme.

Soybeans are planted in rows 24 or 30 inches apart the end of May. A plant about every 3 inches is the ultimate aim. A corn planter does the best job but a drill will do. Soybeans are a legume and must be inoculated like clover but with the specific bacteria for soybeans. Like legumes in general, the crop will not tolerate "wet feet". Good yields have been obtained on both clay and loam soils. Low nitrogen fertilizer like 5-20-10 or 4-24-20 should be used. Two hundred pounds banded preferably below and to the side of the row is about right.

Uncontrolled weeds are the biggest production hazard. Diseases and insects cause little trouble. Never use 2-4D on soybeans as they are extremely susceptible to this weed killer. Tillage is the cheapest method of controlling weeds but it is often not satisfactory. Planting on clean land is the surest method of having a clean crop. New weed-killers which may be used on soybeans are available.

In the fall the plants are allowed to stand until well after frost or until the leaves have dropped. Harvesting with a combine is most satisfactory but on small acreages the plants could be mowed and windrowed and threshed in a stationary thresher. Storing beans with high moisture is the biggest problem Quebec farmers will face. The solution involves planting early and with the right variety, and then allowing the plants to stand in the fall as long as possible before harvesting. It is risky to store high moisture beans.

Most soybeans are sold for the extraction of oil and the production of soybean meal. Markets have not yet developed for Quebec farmers for this purpose. Cooperative loading of rail car lots for shipment to processing plants in Ontario would seem the logical beginning until a Quebec consumer is established. Some of the beans may be ground on the farm and used as protein supplement in the ration.

Another way to use the crop is to ensile the entire plant along with corn to increase the protein and TDN content of the silage. Trials in the U.S. have shown that two rows of soybeans alternated with two rows of corn is the same as having every row an "outside" row and potentially increases the yield of each crop. The alternate planting arrangement makes mixing the two forages simple at harvest time.

new crop for Quebec conditions. Even earlier new crop for Quebec conditaions. Even earlier varieties are coming from the plant breeders which promise to make soybeans a reliable crop over much of south western Quebec.

R. I. Brawn.

60:40 = 50:50 !

EVERY YEAR QUEBEC farmers grow about 150,000 acres of mixed grain. Do oat-barley mixtures provide more grain per acre than oats or barley grown alone? Do the proportions of each kind seeded result in the same proportions at harvest? What varieties go together best for mixed grain?

To answer these and other questions some trials have been carried out by the Agronomy Department, Macdonald College, in cooperation with the Quebec Seed Board. Results from the Ormstown-Huntingdon area indicate that a mixture of barley and oats will provide about the same quantity of grain per acre as oats alone, but more pounds per acre than barley alone. Since oats do better than barley in this area, if you start out with a mixture of 60 pounds of oats to 40 pounds of barley, indications are that you will end up with a proportion of about 70 pounds of oats to 30 pounds of barley in the harvested crop.

At St. Hyacinthe oat-barley mixtures yielded better than pure oats, but not as well as pure barley. Here there was practically no change in the proportion of oats to barley from seeding to harvest. Macdonald College results indicated that pure oats and mixtures yield about the same, but neither as well as pure barley. Under these conditions the proportion of barley in the mixture increased so that a 60:40 seeding ratio resulted in a 50:50 mixture at harvest.

Mixtures have some advantages in reducing the spread of diseases in the crop, in providing a ready mixed feed, and in producing crop plants adapted to a wider range of field conditions. Where mixtures provide the same yield per acre as pure oats, the yield of feed energy per acre will be higher in the mixture because barley has a higher energy value than oats. Similarly, if you can grow good barley you will probably be better off than growing a mixture, from the standpoint of yield of energy per acre.

A seeding rate of 100 pounds per acre is recommended for mixtures. The proportion of oats to barley you use for seeding will depend on the proportion you want in the harvested crop and on how well oats do in comparison with barley in your area. It is not easy to predict results: You may have to experiment a little with proportions.

The varietal combination providing the best yields in the trials was Parkland barley with Glen oats. This mixture is recommended. These varieties mature at about the same time, which is a very important factor. Large differences in maturity between varieties may result in shelling and loss of one before the other is ripe.

It is important that only Certified (or Registered) seed be used for seeding mixed grain. Only by using pedigreed seed can you be certain you have the right varieties for mixing. It is not possible to buy Certified mixed grain for seed. You can buy mixed grain seed sold as Canada No. 1 Mixture or Canada No. 2 Mixture, but this seed carries no pedigree and provides no assurance of varietal purity. It is a much safer practice to buy Certified seed and make up your own mixture for seeding purpose. For best results use Certified Parkland barley with Certified Glen oats.

WHAT ARE THE RESULTS OF ALFALFA BREEDING?

ALFALFA, THE WORLD'S FIRST and foremost forage legume, has undergone spectacular improvement during the past quarter of a century. Varieties such as Grimm, the best available up to 1940, are now being greatly surpassed by Vernal, Narragansett and Rhizoma. In a trial at Macdonald College harvested from 1958 to 1962, Vernal averaged a total of 4½ tons of hay per year compared with 3½ tons for Grimm. Vernal produced better quality forage due to its fine stems, leafiness and resistance to insect and disease pests that damage leaves, as well as 30 per cent more hay. In other trials we have demonstrated that Vernal is much more certain to survive the winter than Grimm, and that it will persist under pasture conditions better than Grimm. The other varieties, Narragansett and Rhizoma possess special adaptations to conditions found in eastern Canada and may equal Vernal under some conditions found here. While seed of these may be in short supply this year, they should become readily available next year if normal seed crops are harvested in the seed producing areas.

Other varieties, originating from French alfalfa, possess excellent yielding ability for shorter periods of time, but do not persist as long, and are not as certain to survive our winters as is Vernal. Alfa and DuPuits are good choices of this type and are quite satisfactory in rotations where alfalfa hay is to be taken for two or three years.

These excellent varieties, according to our present standards, are likely to be outdone by additional new varieties that are already being developed by alfalfa breeders. We have some potential future varieties in our trials which give a preliminary estimate of a 10 to 15 per cent yield increase over Vernal. Work is underway to produce hardier and disease resistant alfalfa of the French type that may prove better adapted to our climate. Other efforts are being directed toward producing higher yields with hybrid vigour in much the same way as has been done with hybrid corn.

These results with alfalfa require a tremendous effort and investment in research and alfalfa breeding. The companies that have made money out of hybrid corn and hybrid chickens feel there is also money to be made in hybrid alfalfa and they are throwing their resources into this work in addition to the efforts being made by government and uni-

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versity workers. These programs are bound to be successful.

But what is the impact of this improved alfalfa in Quebec? The 1961 census indicates that alfalfa is included in mixtures on only 8 per cent of the hay acreage in Quebec, compared with 54 per cent in Ontario. This is largely because a much larger proportion of the farmland of Quebec is not suited to alfalfa than is the case in Ontario. Alfalfa requires deep, well-drained soil. Much of the farmland in Quebec is too shallow for alfalfa due to the bedrock being too near the surface. It is impossible to do anything to make this suitable for alfalfa. Other land that is shallow due to a high water table may be improved through drainage, provided there is enough slope to carry the water away. Other limitations to alfalfa production involve soil acidity and fertility. These can be overcome with lime and the appropriate fertilizers. Superphosphate, Potash and Boron are fertilizer elements that require particular attention under our conditions. But we still must face the fact that much of the farmland in Quebec is not suited to alfalfa and that it is probably uneconomical to modify this land so that alfalfa will grow satisfactorily. Nor does it not appear likely that alfalfa varieties will be produced that will be suited to conditions where soil factors other than fertility presently limit alfalfa production.

It appears to me that the end result of this alfalfa improvement work will be that the farmers on the good land will produce better crops than ever and continue to improve their efficiency. They will continue to get richer while the rest, which includes the majority of Quebec farmers, will continue to get poorer. To even maintain the present status, it is necessary to bring about as much improvement in the crops which can be grown on land not suited to alfalfa as is taking place with alfalfa. This is probably possible, if the same sort of effort is made to improve the other crops as is being made with alfalfa. The other crops that substitute for alfalfa where it cannot be grown are red clover, Ladino clover and birdsfoot trefoil. Of these three, birdsfoot trefoil is genetically and culturally the most similar to alfalfa. It should be possible for it to be improved at the same rate as alfalfa, if sufficient effort (i.e. money) is put into it. At present, I think the total investment going into trefoil improvement is between one and five percent of that going into alfalfa. I do not expect private breeders to put much into trefoil since they cannot see much chance of recovering their investments from seed sales. One way that trefoil differs from alfalfa is that it stays in much longer. How can the private breeder hope to recover his investment with a crop that stays down twenty years or longer, so he only makes one sale during the life of the variety? This means that we must depend upon government and university plant breeders to do the work that is necessary if trefoil is to keep pace with alfalfa. This is my justification for devoting a large portion of the forage breeding resources of Macdonald College to trefoil. Similar arguments apply with red and Ladino clovers, except these may prove more attractive to the private breeder than trefoil.

If Mr. J. Boisvert looks proud, he has every right to feel so. France Rajax Friesian, shown here has a B.C.A. of 196 - 178 for 1961.

CLEAN SEED — YOUR KEY TO HIGHER PRODUCTION

Do you know that your next door neighbour is using seed that is too weedy to grade as seed? Or is it you?

Between 1949 and 1959, 26 countries were surveyed by the Quebec Seed Board to find out what sort of cereal grain seed is being sown by farmers. Some interesting results were obtained — in fact some disturbing results! For example:

- 52% of the 7093 samples collected fell below the purity requirements of the lowest grade of seed.
- Only 26% of the samples grade No. 1 seed.
- About 85% of the samples were home-grown seed, while the remaining lots were purchased from dealers or other farmers.
- Less than 50% of the home-grown lots could be classed as seed.
- Only 54% of the purchased lots could be classed as seed.
- Only 44% of the lots cleaned at commercial cleaning plants graded No. 1, while 28% fell below minimum seed standards.
- Of lots cleaned on the farm with a small fanning mill only 13% graded No. 1, and 65% were rejected as seed.
- Over 90% of the rejected samples fell below minimum seed standards because of excessive weed content. Relatively few were rejected for inadequate germination.

These are the facts. What are the solutions?

It is obvious that too much impure seed is being used. With limited cleaning equipment available on most farms it is difficult to get rid of all the weed seeds, but even some commercial seed cleaning plants that should be equipped for proper cleaning are not doing a good job. Whether the cleaning is done at home or at a commercial plant there are at least three factors that contribute to this situation — inadequate training of cleaning mill operators, procrastination on the part of the farmer, and inadequate grain supplies set aside for seeding purposes.

- The first deficiency can only be overcome by some form of training program, such as seed cleaning short courses. The other factors **you** can do something about.
- Don't procrastinate! Get your seed cleaned early. — February or March — not the day before seeding. A rush job of cleaning at the last minute cannot be a good job of cleaning. Seed must be put through cleaning equipment slowly enough that every seed can come in contact with the sieves and wind blasts to permit proper separation of the poor from the good.
- If you ar using your own grain for seeding, be sure to set aside at least one-third more than you will need. This will allow for screening losses in cleaning — often ranging from 20 to 30%.

If adequate cleaning facilities are available, **if** you have good seed on hand from a crop grown from Certified seed last year, and **if** you are using recommended varieties, there is no real need to purchase Certified seed grain again this year. However, your cleaning problems can be overcome by purchasing new Certified seed each year. Here you are guaranteed seed of high purity, both as to variety and in freedom from weed seeds.
seeds.

Use clean seed yourself. Convince your neighbour that he too should use clean seed.

H. R. Klinck

Grain Corn in QUEBEC

WHAT IS THE STATUS of corn for grain in Quebec today? The acreage more than doubled last year to 2,500 acres. Can this mean anything but that farmer acceptance is increasing? If the farmers are growing corn for grain they must find that it is a suitable crop in Quebec! Word of a good thing spreads! After the 1962 season will the word be good enough to stimulate a further increase in the acreage for 1963? Unfortunately there must be a lot of disillusioned farmers after the 1962 season who will not have too much good to say about their 1962 crop of grain corn.

What was the problem? The weather, what else, coupled with the perennial urge for a larger harvest. Corn evists in many maturity classes so that varieties which need the full growing season are available for regions all the way from Canada into Mexico. Other things being equal the later the variety the higher the yield. Following a period of warm, favorable years, such as we had in 1959, 1960 and 1961, farmers are likely to choose a later variety which will produce a higher yield. A killing frost on the 19th of September can then be a disaster as it was in 1962, when a frost killed much of the crop before it matured. Immature corn is wet corn and it presents two problems to the farmer, the first of providing storage without molding and the second, of a decreased yield due to insufficient kernel development. Some of the moisture will be lost naturally if the harvest is delayed for a month or more following frost, but otherwise the ears must be artificially dried or stored in a narrow slatted corn crib through which the air may readily circulate. The fall climate in Quebec is not conductive to drying and if the moisture is very high — 40 per cent or more — as it was in 1962, only the cold will prevent molding for the soft wet corn will pack in the crib and impede drying. Furthermore, soft corn presents feeding problems not encountered with mature corn. In other words, soft, immature, poorly filled corn is an unsatisfactory farm product to be avoided inless you own a gas tight silo. What can the "poor" farmer do to ensure sound corn in the future? Two steps have priority over all others — plant early and use the earliest hybrid available. Quebec is not considered to be in the corn growing area because of its cool growing season. Corn has rarely been grown for its ripe seed in the past because experience has shown that seasons like 1962 are too common. Then does it make sense when attempting to extend the corn area into Quebec to plant anything but the earliest hybrids? And if the length of growing season is critical, corn must be planted in time to take advantage of every day of favorable temperature. This means planting when the soil has warmed up to about 50°F. Corn planted after the third week in May in south western Quebec is not likely to mature properly even when the earliest hybrids are used.

Trials at Macdonald College and St. Hyacinthe have shown that corn will produce nearly double the amount of TDN per acre of oats. Farmers in these areas can get in on this good thing if they will select a hybrid from the Recommended List of the Quebec Seed Board, plant it the third week in May on well prepared land of high fertility. A poor year can teach us a lot. Let us hope 1962 has taught us how to grow better grain corn in Quebec.

R. I. Brawn.

THE FAMILY FARM

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Compiled by T. Pickup of the Information and Research Service, Quebec Department of Agriculture and Colonization.

DOES FLOODING AFFECT CROP PRODUCTION ?

Experiments Reveal Grasses More Tolerant to Flooding than Legumes

S. J. Bourget

This month in the FAMILY FARM *Section*

Mr. G. Michon of La Présentation, St-Hyacinthe, has vigorously tackled the problem of drainage which is so important on the flat and low-lying land of his district. In some cases he had to resort to tile drainage. He grows grain, sugar beet, and alfalfa.

THE EFFECTS of flooding may be of considerable economic importance for hay and pasture mixtures during all stages of growth, particularly on lands which are flooded in the spring or during the growing season. Accordingly, if a farmer has a field which is poorly drained and, either because of cost or of lack of facilities, it is impossible to establish a drainage system, he may wish to use the field as a permanent pasture. In such a case, it would be important to seed plant species which can withstand high levels of soil moisture. We know that certain plant species can withstand flooding conditions better than others, but we still have to establish to what extent crop yields are affected by periods of flooding. Under soil flooding conditions, plant roots may not get proper aeration, anaerobic reactions predominate and sometimes toxic soil constituents are formed. Plant species differ in their response to a soil atmosphere of low-oxygen content. Little information is presently available on the resistance of different plant species to flooding.

In greenhouse experiments at the Soil Research Institute, Ottawa, we evaluted the effects of different degrees of flooding, for three periods of different lengths, on three grass species and three legume species. Flooding treatments were applied to well-established stands of timothy, brome grass, reed canary grass, alfalfa, birdsfoot trefoil and Ladino clover. The flooding treatments were equivalent to

Dr. Bourget is a specialist in soil physics with the Soil Research Institute, Research Branch, Ottawa, Ont.

field conditions with a water table at the soil surface, at 10 and 16 inches below the soil surface. They were maintained for periods of 10, 20 and 30 days. The results were compared with those from a check treatment which consisted of normal watering under greenhouse conditions.

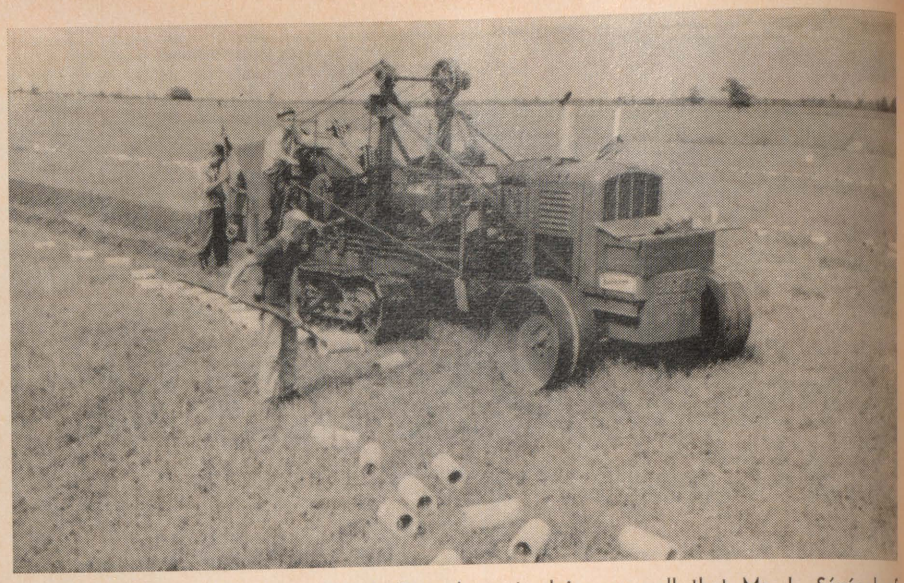
We found the grasses to be more tolerant than the legumes to flooding. In fact, brome grass and reed canary grass benefited from flooding. The top yields of brome grass increased by 40, 59 and 67 per cent when the water table was maintained at the soil surface for 10, 20 and 30 days respectively. The corresponding top yields of reed canary grass increased by 13, 21 and 30 per cent. The top yield of timothy remained fairly constant under similar flooding treatment. When the water table was maintained at 10 and 16 inches below the soil surface, the top yields of grasses were usually lower than those obtained with a water table at the soil surface. The root weights of the three grasses were not affected markedly by flooding, although they tended to decrease slightly as the water table was lowered from the surface to 10 and 16 inches below the surface.

The legumes were much less tolerant to flooding than the grasses. The top yields of alfalfa decreased by 82 per cent when the soil was submerged for 10 days. Complete flooding for periods of more than 10 days killed the alfalfa plants. Ladino clover top yields decreased by 24, 30 and 37 per cent when the water table was maintained at the soil surface for 10, 20 and 30 days. However, the top yields of bird's-foot trefoil increased by 23 per cent when the soil was completely flooded for 10 days and decreased by 18 and 15 per cent when the flooding treatment was maintained for 20 and 30 days respectively. The top yields of all three legumes, when the water table was dropped to 10 and 16 inches below the soil surface, usually increased over those obtained with a water table at the soil surface. The root yields of the legumes followed a pattern similar to that of the top yields.

Because the soil temperature was found to vary from 67° to 81°F., during flooding in the greenhouse, we tried to determine the effect of soil temperature during flooding. Under greenhouse conditions, at temperatures of 41°, 54°, 67° and 80°F., using alfalfa, Ladino clover, bird's-foot trefoil and brome grass, we found that all four plant species were more tolerant to flooding at 41° than at 80°F.

Oxygen diffusion measurements indicated that the oxygen availability at depths of 2 and 5 inches in the soil increased as the water table was lowered. In general, the yields of legumes tended to increase with increasing availability of oxygen whereas the yields of grasses tended to decrease.

Based on this work, it appears that brome grass and reed canary grass can tolerate flooding very well even for periods of 30 days. Bird's-foot trefoil was the most tolerant of the legumes. Alfalfa and Ladino clover definitely require a well-drained soil for proper growth. The effect of flooding may be more moderate in the field because the soil temperature is usually lower than under greenhouse conditions.



After four seasons of grazing, this Ladino clover is doing so well that Mr. L. Sénécal of Boucheville, Chambly, wonders whether he will have the heart to plough it up, in accordance with his cropping programme. Ladino clover requires a well-drained soil for proper growth.

(From: Research for Farmers;
Vol. 7, No. 1.
Canada Department of
Agriculture)

OATS GROWING CONTEST

THE ANNUAL CONTEST for the best crops of oats grown by Quebec farmers will be held this year in Region No. 2. This means that farmers in the counties listed below may compete for a total of $2,750 in prizes (the maximum amount that any one competitor can win being $535):

Arthabaska, Bagot, Brome, Compton, Drummond, Nicolet, Richelieu, Richmond, Rouville, Shefford, Sherbrooke, Stanstead, St-Hyacinthe, Wolfe, Yamaska, Verchères.

The conditions and regulations of the contest, which are virtually the same as last year (except for the change of territory) are as follows:

Anyone in the above-named counties who wishes to take part in the contest in 1963 must:

1. be a genuine farmer;
2. have signed an application at the office of his county agronome before the first of June 1963;
3. use registered seed to sow a minimum of ten acres to one of the following varieties of oats recommended by the Quebec Seed Board: Glen, Garry, Roxton or Shefford;
4. be the owner of the crop.

For purposes of judging, the region will be divided into two sections. A competitor in either of these two sections:

a) may take part in the competition for standing crops, in which awards of $350 are offered in each section, and in which crops are judged on the basis of fertilization and preparation of the soil, estimated yield, and absence of weeds and diseases;

b) may take part in the Regional Contest, providing that:

Mr. J. Landry (left) of St-Grégoire, Nicolet decides whether the oats are ready for harvest.

1. he has gained a mark of at least 60% in the summer inspection;
2. he has not less than 100 bushels of oats from his crop cleaned by the 1st of November 1963;
3. the sample taken by one of the judges and analysed at the laboratory of the Plant Products Division is eligible for the grade, General Seeds of Commerce No. 1, or better.

c) may take part in the Provincial Contest if he has won a place amongst the first ten competitors in either section in the Regional Contest.

Results of last year's contest

The Oats Contest which, starting in 1962, replaced the former barley-growing contest, is held under the auspices of the Coopérative Fédérée and the Governments of Canada and Quebec. It made a splendid beginning last year, thanks partly to the efforts of agronomes and managers of cooperatives, who succeeded in enlisting 337 competitors from amongst the best farmers in Region No. 1.

In the competition for standing crops, 44 entrants shared $700 in prizes. The Coopérative Fédérée has already published the names of the winners and distributed the prizes.

In the Regional Competition, 139 competitors in section one, and 114 in section two, were found to have met the requirements. The prize winners, selected on the merits of a two-pound sample of their oats, were as follows:

Section No. 1	REGIONAL COMPETITION	
1. David Madore	Ile Perrot (Vaudreuil)	$200
2. P. E. Meloche	Vaudreuil (Vaudreuil)	100
3. Antonio Séguin	Ste-Marthe (Vaudreuil)	75
4. O'Connell Farm	Ste-Geneviève (Jacques-Cartier)	50
5. J. G. Vinet	Vaudreuil (Vaudreuil)	35
6. E. Ménard	St-Polycarpe (Soulanges)	25
7. Lionel Séguin	St-Clet (Soulanges)	15
Section No. 2		
1. Gilles Couture	Sherrington (Napierville)	$200
2. A. Dubuc	Ste-Martine (Châteauguay)	100
3. Bernard Brault	Ste-Martine (Châteauguay)	75
4. Bernard Laberge	Ste-Martine (Châteauguay)	50
5. U. Couture	Sherrington (Napierville)	35
6. G. Brault	Ste-Martine (Châteauguay)	25
7. A. Beaulieu	Ste-Martine (Châteauguay)	15

In the Provincial Competition, the prizewinners, judged on the merits of another two-pound sample of their oats, were:

PROVINCIAL COMPETITION	
1. David Madore	$250
2. G. Brault	125
3. A. Dubuc	90
4. O'Connell Farm	75
5. Gilles Couture	50
7. J. G. Vinet	25
8. Bernard Laberge	20
9. E. Ménard	15
10. Bernard Brault	10

Operators of fanning-mills who cleaned the 100-bushel lots of oats for the three leading contestants in each of the two sections of the Regional Competition are entitled to share a sum of $100. Their names will be announced.

The Oats Contest of 1962 unquestionably helped to improve the production of seed oats in Region No. 1; firstly, by contributing to the exceptionally high average yield of 79 bushels to the acre harvested by the entrants who satisfied the conditions of the competition (this was more than double the provincial average for 1961); secondly, because of the outstanding quality of the seed produced in the contest; 84% of the samples taken being graded No. 1 by the laboratory of the Plant Products Division of the Canada Department of Agriculture; and thirdly, because the varieties grown by the competitors were amongst those which have given the best results in the numerous trials of the Quebec Seed Board.

In order to help the preparation and distribution of this good seed, the Department of Agriculture and Colonization pays the Coopérative Fédérée the cost of storage during the months of January, February and March, providing that it is:

a) registered or certified seed oats;
b) of the varieties Glen, Garry, Roxton or Shefford;
c) seed produced in Quebec;
d) surplus production sold or consigned to the Coopérative Fédérée of Quebec by affiliated cooperatives which have not been able to dispose of it locally.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

PROCESSING POOR HAY IMPROVES FEED VALUE

Left with a lot of poor quality hay? Before feeding it in its present form this winter, give some thought to chopping, grinding, or pelleting it.

This technique paid off in tests at a prairie experimental farm of the Canada Department of Agriculture. Steer calves ate more of the poor quality hay and got more out of it. Acutally, calves fed just the baled hay lost weight.

Poor quality hay used in a feeding trial at the Melfort, Saskatchewan, experimental farm contained only 6.6 per cent crude protein, reports Dr. S. E. Beacom. It was first-cut hay and contained stubble from the previous crop.

The hay was fed over an eight-week period in long (baled), chopped, ground and pelleted form to four groups of steers, each containing six animals. The results:

— Calves fed long hay consumed an average of 6.5 pounds each daily and lost an average of 0.14 pound of body weight per head daily.
— With chopped hay, consumption was 7.1 pounds per head and gain 0.22 pound per head daily.
— A third group at an average of 10.3 pounds of ground hay daily and chalked up gains of one pound a day.
— Consumption of pelleted hay by the fourth group crept up to 11 pounds daily and average gains of 1.3 pounds per day were recorded.

When ground or pelleted, the hay was harder to digest. This was more than offset by increased consumption which allowed the calves to gain a pound or more daily.

Dr. Beacom ran a second trial in which good quality hay of 17.5 per cent protein was fed. Calves in all groups gained on this feed, ranging from 1.32 pounds per day on the long hay to 2 pounds per head daily on pelleted hay. Pounds of feed consumed per head daily ranged from 10.4 to 12.7.

In both trials, steers fed the pelleted hay required a week to 10 days before they would accept the feed readily.

From "Farm News", Canada Department of Agriculture.

USEFUL RECOMMENDATIONS

Those who have to contend with climatic and soil conditions in Quebec in order to make two blades grow where no blades grew before, and find themselves face to face with important, practical problems such as when, how much, and what kind of commercial fertilizer to apply to field crops or strawberry plantations, and what seed

AGRONOMES

The following alterations have been made to the roster of County Agronomes published in the February issue of the Macdonald Farm Journal:

NEW APPOINTMENTS:

E. Vigeant, Box 220, Amos, ABITIBI-EAST, tel. 13

M. Parent, Box 256, Macamic, ABITIBI-WEST, tel. 36

F. G. Martin, 253 Centre St., Ste-Rosalie, BAGOT, tel. 68

L. G. Simard, Box 653, St-Georges East, BEAUCE, tel. 228-2742

G. Gendron, St-Damien, BELLECHASSE, tel. 192

J. Meunier, Box 699, Maniwaki, GATINEAU-NORTH, tel. 144

L. Bégin, 1034 Commercial St., St-Romuald, LEVIS, tel. TE. 9-9213

J. R. Brassard, Box 68, Louiseville, MASKINONGE, tel. CA. 8-2808

J. R. Paradis, Box 430, Nicolet, NICOLET-WEST, tel. 4271

H. Sylvère, Box 90, Marieville, ROUVILLE, tel. 589-7474

R. Pigeon, Box 90, Marieville, ROUVILLE, tel. 589-7474

O. Lamontagne, Box 787, Rouyn, ROUYN-NORANDA, tel. 762-6591

E. Lafleur, Box 218, St-Jean, ST-JEAN, tel. FI. 7-4381

L. Vachon, Box 50, Ville-Marie, TEMISKAMING, tel. 49

TRANSFER:

F. De la Durantaye, to BERTHIER (from ST-MAURICE). New address: — Box 120, Berthierville, tel. TE. 6-4364

NEW TELEPHONE NUMBERS:

T. Tremblay, Acton Vale, BAGOT, tel. 546-2422

B. Riverin, Baie St-Paul, CHARLEVOIX-WEST, tel. 435-2112

D. J. MacMillan, Cookshire, COMPTON, tel. TR. 5-3319

R. Corriveau, Lake Mégantic, FRONTENAC, tel. 583-0780

A. Méthot, Alma, LAKE ST-JOHN, tel. NO. 2-5466

P. Simard, Box 543, Rivière-du-Loup, tel. UN. 2-6529

NEW P.O. BOX NUMBERS:

L. V. Marsot, Box 218, St-Jean, IBERVILLE

G. Raynauld, Box 669, L'Assomption, L'ASSOMPTION

Y. Ménard, Box 367, St-Rémi, NAPIERVILLE

H. Veilleux, Box 367, St-Rémi, NAPIERVILLE

We regret to announce the recent, sudden death of Mr. Arthur Rioux, Agronome for the County of Rimouski.

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mixture to sow for hay in imperfectly drained soil, will find valuable information in two booklets obtainable, free of charge, from the Information Service of the Quebec Department of Agriculture and Colonization:

RECOMMENDATIONS OF THE QUEBEC FERTILIZER BOARD; publication No. 259A,

and

RECOMMENDATIONS OF THE QUEBEC SEED BOARD; publication No. G.C. 32A.

Bulletin No. 174-A, entitled "Good Seed for Better Field Crops", published in 1954, also contains a great deal of useful information (100 pages), though it is not quite as up to date as the other two publications, which are revised annually.

GENERAL AGRICULTURAL ADVICE

The following suggestions are offered by the Quebec Department of Agriculture and Colonization, in the hope that those planning their farm work at this time of the year will find them helpful.

Make a planting plan. Consult the publication "Agricultural Outlook, Canada" (obtainable from the Information Division of the Department of Agriculture at Ottawa) when drawing up your programme for the coming year.

Get the brooder house ready for the chicks. See that iodine is always included in the rations of livestock either in the form of iodized salt, or as potassium iodide (paying careful attention to the precise recommendations for its use).

Potato growers should be ordering their seed. Take advantage of the slack season to repair implements and harness, etc.

Examine your stored grain and take steps to control insects, if necessary.

Orders for packaged bees should be placed early.

Cleanliness, even temperature, and proper feeding go a long way to prevent losses amongst young chicks.

As regards the home garden, it is time to be making a plan, obtaining seed, fertilizer, etc.

Colonies of bees overwintering in cellars should not be allowed to run short of food. Give them sugar-syrup or a frame of honey that has come from a healthy hive.

Prepare and clean the grain you intend to sow this spring.

It is time to order trees and shrubs for the decoration of your home.

Those who have cows infected by mastitis should not wait until the disease has played havoc in the herd: they should consult their veterinarian.

At all times of the year, poultry should have access to clean, cool water.

If there is a woodlot on the farm, it is essential that it be kept in good condition. The sugar bush is often a profitable source of additional income, and therefore deserves attention.

Silage should be removed from the silo a few hours before being fed to livestock.

When obtaining chicks find out where they come from and be sure they are bred from good stock.

Keep feed hoppers high enough from the ground to avoid waste of feed.

It is very important to feed pigs a ration containing the minerial that they need.

On many farms, horses are indispensable and they should be given proper care.

Now is a good time to order commercial fertilizers, so that you will not be caught without them in spring.

In many cases, the worth of a herd depends on the merits of its sire: if necessary, thought should be given to making a wise choice.

If you sow oats this spring, obtain (if necessary) seed of a recognized variety, suited to your district.

GERMINATION TESTS FOR OATS

Mr. N. Parent of the Quebec Department of Agriculture and Colonization reminds those who are going to sow oats this spring that it is time to be thinking about seed.

In general, yields were very good in 1962, but in many cases bad weather played tricks with grain at harvest time.

For the farmer who uses his own home-grown oats for seed, it is not important that the seed be brown in colour, but it is most important that it shall have good powers of germination. In case of doubt, it is advisable to use the free service provided by the Department to have the germination of seed oats tested.

All that is necessary is to send a representative sample of the grain, weighing about half a pound, together with your name and postal address, to "The Soils Laboratory, Ste-Anne de la Pocatière, County of Kamouraska".

Samples are tested in the order "first come, first served".

HOW TO ELIMINATE DIRTY EGGS

Lucille Bélanger of St-Ulrie, Matane, wonders why two hens should find it necessary to squeeze themselves into one nest, when plenty of space has been provided.

Besides being objectionable to buyers and not very saleable, soiled eggs may also deteriorate as a result of their contents becoming contaminated through the shell, by the dirt on the outside. They can be cleaned with sand-paper, steel wool or damp cloth, or washed with a bactericidal and detergent solution; but such handling is disagreeable, tedious, and time-consuming.

Mr. Roger Paiement of the Quebec Department of Agriculture and Colonization advises poultrymen to put their efforts into removing the causes that lead to eggs becoming soiled in the first place, rather than into removing dirt from the eggs afterwards.

Special attention should be paid to suitable means of keeping the litter on the floor dry. The dryness of litter depends on the absorptive power of the material used and on the effectiveness of forced ventilation. It is suggested that litter be spread on the floor to a depth of at least six inches and that all damp patches be removed, particularly from the neighbourhood of the drinking-fountains. Some poultrymen mix slaked lime with the litter and turn it over occasionnaly to air the lower layers. Overcrowding in poultry buildings tends to keep it damp: hence good management implies comfortable and sufficiently roomy housing. Wire-netting should be used to prevent birds from walking in manure underneath roosts and in dropping-pits. All these precautions will help to keep the birds' feet clean and thus prevent the eggs, with which those feet are going to come into contact, from getting soiled.

Overcrowding and breakages of eggs in nests also cause soiling. These troubles will largely be avoided if enough nests, with a good, thick bedding of litter, are provided. There should be one individual nest for every five laying birds or, if community nests are used, 30 square feet of nesting space per 100 birds.

Good condition of trays, cartons, shipping cases and other containers also helps to ensure the cleanliness of eggs. The condition of such materials, which are designed for the safe transport of eggs, should be frequently checked, because breakages in transport result in large numbers of eggs getting soiled, as well as broken or cracked. Eggs should be placed in containers carefully, large end uppermost.

Eggs are clean when they are laid. If they get soiled, it is owing to dirty conditions in their surroundings. By eliminating such conditions, it is possible to keep eggs as clean as a perishable product should be that is graded on the basis of its appearance.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

LIME AND MARL

During the past twenty years, over five hundred tons of ground limestone have been spread on this farm, owned by Mr. Johnny Bergeron of St-Prime, Roberval.

The majority of soils in Quebec are acid, and hence need treating with lime in one form or another before they will produce satisfactory crops of many of our agricultural plants.

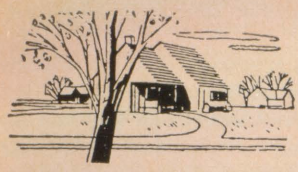
In order to promote the use of soil amendments, the Quebec Department of Agriculture and Colonization offers grants for their purchase or transport (or both). Information about such subsidies was published in the Macdonald Farm Journal for June 1961 ("Purchase Premiums and increased Aid for the Transport of Agricultural Limestone") and October 1961 ("Aid for the Use of Marl"). It is likely that these policies will be in force, in a similar form, in 1963.

Mr. R. Trépanier of Grande Rivière, Gaspé South, makes good use of marl to improve his soil. The Gaspé is rich in deposits of marl.

Ground or Crushed Limestone: There are two kinds of limestone — calcitic and magnesian (dolomitic); the former consists mainly of calcium carbonate, the latter of carbonates of calcium and magnesium. In dolomitic limestone, magnesium carbonate is generally presens in somewhat lesser amount than calcium carbonate. Both kinds contain varying amounts of inert rock material. The quality of ground limestone and its value as a soil amendment depend on both its chemical composition and its degree of fineness. The highest quality limestones contain at least 95 per cent of calcium carbonate or of the carbonates of calcium and magnesium, and those of good quality contain at least 85%. The degree of fineness determines to a great extent the rate of solution of the ground limestone in the soil, and hence the rapidity with which it corrects acidity and furnishes lime for plant growth. The finer the limestone is ground the more rapid is its solution and hence its effectiveness.

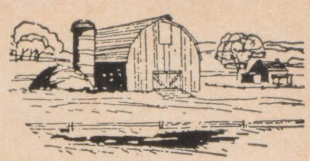
Marl: In some parts of Quebec, particularly on lake bottoms, there occur deposits of a gray or white substance known as marl. Some marls are almost pure calcium carbonate; others are impure owing to the presence of clay, sand, or organic matter. If they contain a sufficiently high proportion of calcium carbonate, they make an excellent soil amendment. A marl containing, in the air-dried condition, from 80 to 90 per cent of calcium carbonate may be considered to be of good quality. Marl is usually dug in winter when the lakes are frozen, and piled directly on the fields in small heaps, where it is broken up by the action of frost and is then easily spread in spring. There is a tendency to use marl too heavily: one or two tons of the dried material to the acre is sufficient.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.



The Better Impulse

NEWS AND VIEWS OF THE WOMEN'S INSTITUTES OF QUEBEC



Dear Members:

It was evening when we arrived in Hong Kong and, looking down from the windows of our jet, it looked like a jewelled tiara with coloured lights encircling the harbour and stretching up the hillside. It was indeed a sight to remember. We landed on the peninsula of Kowloon and from our hotel dining room we could look out across the harbour to Hong Kong.

"Far away places with strange sounding names". These words recurred to my mind many times on our travels but Hong Kong was strange and exciting in so many ways. Bright scarlet and black Chinese signs, rickshaws, narrow streets, strange wares, many dialects, poverty and riches, junks and sampans, refugees, and over all the heat and humidity. One can read of these things and try to imagine what it is like and yet it is all so different when one actually sees it.

We crossed by ferry for a tour of the Island of Hong Kong and then rode by cable car to the top of Victoria Peak where we had a wonderful view of the Harbour. Over 500 ocean-going vessels dock here each month, while close inshore one sees the junks and sampans of th efisher folk. It is here on the Peak that the wealthy people live and here we saw the castle-like homes that have been used by Hollywood in many of their films. We had a glimpse of "Arrowhead", the beautiful home used for the filming of "Love is a Many Splendoured Thing" and "Deepwater", the house used by Clark Gable in "Soldiers of Fortune".

We also visited Tiger Balm Gardens, a sort of Chinese Disney Land. It was built by a wealthy Chinaman who had discovered a healing ointment which he named Tiger Balm and the sales of which made him a millionnaire. These gardens were his dream and comprise groups of fantastic people and animals all made from a kind of clay, in terraced setting extending up the hillside. The colours are vivid and garish and it seemed to me that the money could have been put to better use with so much poverty around, but both tourists and natives alike seemed to enjoy it.

We visited the Canadian Cemetery on the hillside overlooking the beautiful harbour where lie so many of our Canadian boys and nursing sisters. As I looked through the Memorial Book, I read the names of boys from Sherbrooke, Gaspé and Matapédia, and I should like to be able to tell their relatives of the quiet beauty of this peaceful, well-kept spot. Dwarf rose bushes lined the paths between the rows of headstones.

Another very interesting visit was to St. Simon's Hostel where about 400 children of fisherfolk and widows are given shelter, education, medical and spiritual care. We were most hospitably received and shown some of the work which had been accomplished. A new mission Church had just been built and in here the wee kindergarten-age children were being taught. They tugged at your heart strings as they did their little action songs, marching around clapping their hands and gazing at us with their big solemn eyes. One little girl, a polio victim, dragged one leg pitifully but managed to keep pace with the others. We crossed a yard and up a hillside path to classrooms where older boys and girls were being taught and they too entertained us with songs. There was great excitement in the Mission as they were to receive food from Care the following day. Many of the Institutes from Canada, especially those from the Western Provinces, have sponsored children here.

There had been a typhoon the week before and there was still much wreckage in parts of the Island. Care packages were to be given out to these victims too. Shelter belts are built around the harbour within which the junks and sampans take refuge during the typhoons. We saw many places where palms and trees had been stripped of their foliage and native houses were overturned and blown apart.

One day we toured the harbour by launch, weaving in and out of the closely packed junks and sampans of the floating population of Hong Kong. Here people spend their entire lives afloat in what we would term "squalor". A man and his wife and children, with all their possessions, eat and sleep on a boat smaller than many of our pleasure craft. They make a shelter over the boat of wood, tin, pieces of sacking, in fact junk, and this is their protection from the weather and their only privacy. On this shelter pots, pans, a scrawny chicken or two in slatted coop, hang precariously while for those who appreciate a little beauty there was sometimes a plant in a container.

HONG KONG

(Pearl of the Orient)

Members of the Delegation and kindergarten children in St. Simans Hostel.

More on Hong Kong next month

Sincerely,
E. C. Ossington,
1st Vice-Pres.

FROM THE OFFICE

More outlets for old Xmas cards: Send WITHOUT CUTTING to — China: Mrs. S. M. Gordon, 5 Tien Me Chich, Hsin Chu, Taiwan (Formosa), Free China.
India: William K. Singh, Mission House P.O., Ranipur, Jhansi UP, India Christian Education.
England: Limbless Ex-Servicemen Enterprises, Christmas Card Dept., Newcastle on Tyne, England.
Also Miss Helena Blackader, 136 Victoria St. E., Amherst, N.S. (for missions in India).

Pack in corrugated cardboard cartons, Mark "Used Christmas Cards" and "Bookpost" and leave end open. Very heavy brown paper could also be used.

The Montreal Museum of Fine Arts are offering groups free guided tours of the Museum. Write the Museum 1379 Sherbrooke St. W., Montreal, Que.

The Adult Extension Service informs us they have some copies left of the following pamphlets which they are no longer keeping in stock and which may be purchased from Extension Service, Box 237, Macdonald College, at 10¢ each (formerly 25¢) Portraits & Landscapes in Fine Veneer Woods; Juniper Root Carving; Making Duck Decoys and Horn Craft.

THE MONTH WITH THE W.I.

Great interest was taken in the special Farm Forum program this month, and many W. I. branches took part. The Christmas Stocking project for the Save the Children Fund has been taken up again, and donations were to Pennies for Friendship, Retarded Children, Senior Citizen, 4H Clubs, and community skating rinks.

ABITIBI :

Malartic held a Rummage Sale to raise funds to purchase furniture and heating equipment for their hall. A sewing course given by Mrs. Wells, ended with a Fashion Show, when 24 garments were modelled or displayed. An English course has been started under the direction of Mrs. De Keyser.

BONAVENTURE :

Black Cape are supplying cod liver oil capsules to the school children. **Grand Cascapedia** answered the roll call with "What have I learned from the Q.W.I." A drawing will be held on a quilt. **Matapedia** have distributed vitamin capsules to school children, and **Restigouche** had a card party.

ARGENTUEIL :

Arundel gave a donation to the school library, and prizes in the grade school. Awards are given for greatest improvement rather than top marks. A Grade 10 scholarship is also given, and a prize for proficiency in French. **Brownsburg** entertained the Farm Forum, when Mr. Davis MacVicar spoke on the Farm Forum, and Mr. Mansel Wilson gave a talk on wild life conservation, illustrated with slides.

Dalesville-Louisa entertained their husbands — games and quizzes were enjoyed. **Frontier** heard about W.I. work from the County President, and **Jerusalem-Bethany** discussed the report to the Royal Commission on Education. **Lachute's** guest speaker was Dr. Suzanne MacKimmie, who spoke on her recent visit to Italy. A version of the "Wandering Jew" was written by Mrs. Clarke, and read by four members. A prize for the best presentation was won by Mrs. Gordon Davidson. **Pioneer** also had the County President as a visitor, they discussed "Fall Out" and played Valentine games. **Upper Lachute-East End** held a white elephant sale.

BROME :

Knowlton Landing answered the roll call by suggesting a roll call for next year's program. A donation was made to provide milk for needy school children. **South Bolton** discussed women's place in the world. **Sutton** entertained members from Abercorn W.I. Five quilt tops and nine pairs of socks were completed for the Red Cross.

CHATEAUGUAY-HUNTINGDON :

Aubrey-Riverfield modelled aprons and enjoyed a paper read by Mrs. J. D. Lang on the "Story of Corn."

Franklin Centre had a social evening — with husbands invited, which included dinner, games and prizes. **Hemmingford** presented a bursary at the opening of an extension to the High School. They are promoting a milk program in the school, and have sent old Christmas cards to missionaries. **Howick** had a demonstration on the use of an air mattress, given by Mrs. A. Peddie. Dr. Ubar of Turkey, on the staff of a local hospital, gave an interesting talk.

First president of Harwood WI, Mrs. J. McKeller cutting 15th birthday cake. Mrs. Ratcliffe, president, watches.

Busy leatherworkers at Harwood WI. Miss Runnells, technician, in background.

Huntingdon had a reading "Pick up the Rolling Pin, Girls" and a Valentine Quiz. **Ormstown** report two new members and a quilting meeting.

COMPTON :

Canterbury are preparing quilt blocks. **Cookshire** discussed the inclusion of Agriculture in the school curriculum, and pushing the pupils too fast, with the result that the bright ones took advantage of this, but the slow ones became discouraged and failed in many cases. Three films were shown — "Farm Business Management", "Hooked and Braided Rugs" and "The Prevention and Care of a Cold." **East Angus** members attended French classes, and held a successful Paper Drive.

East Clifton made a donation to a cemetery in memory of deceased members. Chinese Auctions were held and various papers read. **Scotstown** are busy making Christmas stockings for the Save the Children Fund.

GASPE :

Wakeham brought in "boxes of goodies" suitably decorated for Valentines, which were sent to child patients in the sanatarium. The citizenship convener made another appeal for yarn, and this is being made up into articles for Unitarian Relief. Two boxes of clothing were sent to Korea. **York** sent Valentines to members who had moved away.

A Citizenship meeting at Ste. Anne's. From left to right: Miss N. Holmes, Cit. Conv., Mrs. R. Smith, President, Mrs. G. Sanders, Treas., and guests Mrs. Shanti Raghubir, British Guiana, Miss Frances Lee, Formosa, Miss Bernice Prevatt, Trinidad, and Miss Copa Konar, India.

JACQUES CARTIER :

St. Anne de Bellevue made a donation to help with retarded children of the Lakeshore, and discussed the Macdonald Royal.

MISSISIQUOI :

Cowansville was treated to a musical afternoon given by Mrs. Guy Shufelt. A talk was given on the different kinds of music, and illustrated with records. **Dunham** brought in cotton for the Cancer society, and donated to the Save the Children Fund.

GATINEAU :

Aylmer East discussed W.I. activities and work at the Cancer Clinic. **Eardley** brought in articles which will be donated to the Hospital. A letter from Mr. John Elliott, Macdonald College, on Fram Accounting, was read and discussed. **Rupert** answered the roll call with ideas on how to make the home safe from fires.

PONTIAC :

Bristol had an apron parade and a demonstration on the different types of irons, since 1800. **Elmside** had a cookie contest, and a reading on "The Secret of Generosity." **Fort Coulonge** had a display of articles from foreign countries, and **Clarendon** entertained the members and directors of the Agricultural Society. **Shawville** added to their funds with proceeds from a marathon bridge and a white elephant sale. They are providing hot lunches for two needy school children. **Starks Corners** are assisting the community skating rink.

QUEBEC :

Valcartier's meeting was in charge of their Welfare and Health convener, Mrs. C. McBain, who introduced the guest speaker Mrs. Lloyd Johnston, R.N. A Medical Quiz was held. Teachers from the school gave reports on the work they are doing. Money for Pennies for Friendship was raised from the sale of ribbon, braid etc.

RICHMOND :

Denison Mills had a white elephant sale, with proceeds going to the March of Dimes. Yarn was given out, and articles will be made to be put in Christmas stockings. A subscription for 10 copies of the Federated News was paid for. **Gore** had a bring and buy sale for the March of Dimes. **Richmond Hill** had a quiz on the Handbook, with 1st prize going to Mrs. John Hawker, and 2nd to Mrs. Smith. A C.A.C. membership was taken out. **Melbourne Ridge** are making repairs to their hall, and a banquet will be catered to for the 7/11 Hussars. Cards were sent to members in hospital.

Richmond Young Women had a baby picture contest (of members) with prizes going to Mrs. C. Pariseau and Mrs. T. Perkins. Prizes were decided for Richmond Fair. **Shipton** heard a report on an Historical Exhibit held in Richmond given by Mrs. Harris, while Mr. Harris told of a trip to England and Scotland, illustrated with slides. A sale of pot holders was held with proceeds going to the March of Dimes. **Spooner Pond** had a cookie conest with 1st prize going to Mrs. R. Fleck. Pennies for Friendship were collected and a C.A.C. membership taken out. A well filled sales table was disposed of, and members are working on a quilt.

ROUVILLE :

Abbotsford held a card party, and their contest was to guess the amount of money in the Pennies for Friendship jar. The prize was wonby Mrs. R. Coates.

SHERBROOKE :

Ascot made 29 pairs of socks for the local Welfare Agency. Their roll call was "How I Have Economized this Year" and most of the answers concerned home freezers. The competition was for a hand-made hat, and a phantom food sale was held. **Belvidere's** guest speaker was the County convener of Publicity. Mrs. H. L. Wallace, who spoke on forms of publicity for the Q.W.I. **Brompton Road** catered to a Milk Producers supper. They held a "Horror Auction" and heard an article on the growing of mums. An interesting letter was received from a pen-pal in Australia. **Lennoxville** held a sale of surprise parcels to start a fund for their 50th anniversary in 1964. A discussion on historic skills was led by Mrs. L. B. Pierce, those still carried on in the province include the making of bread in out-door ovens, and dying with barks, leaves etc. **Milby** held a towel shower for a children's home, they are providing hotlunches for a needy child.

STANSTEAD :

Ayers Cliff answered th eroll call with edible Valentines which were distributed to shut-ins. **Beebe** exchanged recipes and **Stanstead North** donated to a High school educational trip to New York. **Ways Mills** received a gift from their "Link" in England — Cross in Hand W.I., and also their magazine, Home and Country.

VAUDREUIL :

Cavagnal held a card party and discussed the various courses available.

WEATHER WISE

With spring weather approaching, differences in climate on a small scale become more noticeable. This is what we call microclimate, and farmers find it useful in many ways.

The most obvious differences are in temperature. Snow mels from a roof or near a dark object when the air temperature is well below 32°. The temperature where melting occurs is 32° orhigher. Snow will melt on the side of the driveway facing south but not on the opposite side. Snow melts around the trunk of a tree or a branch. Flowers will appear first at the south side of a building. Fields with dark coloured soil and low water content will warm up first.

Differences in humidity and wind are as great. Cattle will show the variation in wind by their preference for certain spots. Some plants require the higher humidity present in the shade of a building or of a taller plant.

We create differences in microclimate by using glass frames, or by planting some plants as shelter for others.

You will probably be surprised, as you look carefully around the yard or carry a portable thermometer, by the variation in microclimate.

For Your Information

A quart of milk per milking — and music, too

A **quart per milking doesn't sound like much but THIS is from a sow!** Michigan State University swine researcher, Dr. Elwyn Miller, obtained this yield while using his new milking machine on sows. "The Michigan Farmer" reported recently that Dr. Miller decided baby pigs got more nutrients from sow's milk than with sow-replacer milk. He **devised a gadget with 12 teat cups, operated by a standard milking machine motor and pump.** Sow milking is not quite as efficient as cow milking and IT IS NOT YET A ONE-MAN OPERATION! At milking time, the sow is crated, and a web belt strapped around her to keep her upright. Two operators man 6 cups each. A hormone is injected into the sow's veins to start the milk flowing. **Since the sound of little pigs nursing causes greater milk production, this sound was recorded. The record is played when the sow starts to dry up and another wave of milk starts.** Hi-fi works as well as stereo!

Farm Forum News 'N' Views

ON A.R.D.A. ASSISTANCE

Every Farm Forum in the Province of Quebec felt that its area would qualify for assistance under A.R.D.A.

The Harrington Forum in Argenteuil County summed it up this way — "We feel that ARDA could greatly assist this area. It now supports fewer people than it did when farms were hand-operated. Most young people leave to seek jobs elsewhere. If new industries would locate near us, it would help. The Rouge River is very scenically located, but in low water periods the water is not clean. Many places are suitable for camping spots, parks, and summer resorts but need promoting and development. A study of soils and changing crops might benefit greatly. Changing times have changed the community and perhaps a change in what crops have been grown would be good and profitable, — leadership and guidance are essential."

One Forum in Brome County felt there was too much politics involved in A.R.D.A. They reported — "Keep politics out of ARDA" — the Government is not living up to its promises, so even if we do qualify — nothing can be done until the Government fulfills its promises."

The Second question on ARDA asked — what kind of assistance do you need and what type of projects could be undertaken? Pasture improvement, drainage and reforestation were suggested by Knowlton, Sawyerville and Frost Village. Soil and crop suitability surveys were suggested by Arundel, Sutton and Lachute Road. Money for more and better highways was Farnham Glen's request. Community pastures were suggested by Seventh Line in Pontiac County.

"We need financial assistance," most forums reported. Creek Forum in Brome County stated: "We want the money which we have been promised." Others felt guidance, adult education and leadership development were important.

Few communities in Quebec have organized to use ARDA. Brome County and many others have been carrying on community development activities during the past 20 years. A few ARDA committees have been formed but little action has resulted.

Hog Premium Back to $3.00

Effectively April 1, 1963, the quality premium on Grade A hog carcasses will be increased from $2.00 to $3.00, agriculture minister Alvin Hamilton has announced.

The premium had been lowered to $2.00 on September 4, 1962, as part of the federal government's austerity programme. Reported savings since that time will amount to an estimated $1,345,600 by March 31, 1963. Before the reduction was made, premiums paid for in that fiscal year totalled $4,635,558.

New Electric Farm Gate

A new type of farm gate which allows vehicles to drive through it, but restricts animals, has been developed in Britain. The Alberta Department of Agriculture reports that the new gate is made up of thin fibreglass rods treated so an electrical current can pass through them.

The rods are hinged eo each gatepost and jut out across the gateway to overlap in the middle. Each rod is spring-loaded to hold it in place. They are rubber tipped to prevent scratching the vehicles and their self-closing "shuts" the gate immediately behind the car, truck, or tractor.

The gate operates like an electric fence.

The Abundant Life

The farmer raised two chickens and sold them to a city man and with the proceeds bought two shirts. The city man now had two chickens and the farmer two shirts.

A planner advised the farmer to shorten up on supply so as to increase the price. Accordingly the farmer raised one chicken and took it to the market selling it for the price of two — but when he bought a shirt it cost him twice as much as formerly.

The city man had one chicken and the farmer one shirt. This is called the more abundant life?

OUTSIDE . . .

This is the time of Seed Catalogues. Have you sent for yours? If not, drop a card to:

Dupuy & Ferguson Ltd., 438 Jacques Cartier Sq., Montreal;
W. H. Perron & Co. Ltd., 515 Labelle Boulevard, Chomedey, P.Q.;
Dominion Seed House, Georgetown, Ontario;
Wm. Rennie Seeds Limited, 456 McGill St., Montreal;
Ewing's Seeds, 474 McGill St., Montreal.

and see for yourself what new ideas the Seedsmen and Nursery men have in store for you in 1963. For example, Dupuy & Ferguson have a Crimson King Maple on their cover. Inside the cover you will find 8 gorgeous, hardy Chrysanthemums, followed by the famous Floribunda and Arctic Roses. Then you can turn the page and see the new dwarf Balsam and the dwarf Zinnia, as well as the color parade in Petunias and many other fine plants to delight the heart of the gardener.

W. H. Perron, not to be outdone, has as usual his page on lawns, followed by a page on "Grow your own house plants". Then, for the gourmet, follows 2 pages of delectable vegetables, such as Butterhead Lettuce, Coreless Carrots, Snowball Cauliflower, Celeriac, Butternut Squash, and Small Fruited Egg Plant. These pages are followed by a riot of color in new annuals, and the old standby for any garden, Perron's mixture of superb Gladioli.

Ewing's, likewise, have many excellent flowers and vegetables, as well as tools, herbicides, etc. Probably the most interesting feature of this catalogue is found on pages 2 and 3 — Making the flower garden, the culture of hardy annual flowers, the culture of half-hardy annuals and seed sowing indoors. These directions should be in the hands of even the most sophisticated gardeners.

Now we come to the greatest little nursery catalogue ever published, and that is the 1963 issue of the Dominion Seed House. Right on the cover we will find an array of perennial Primroses. Turning the pages you will find Jiffy Pots, Plastic Tree Guards, Seed Sowers, Plant Bands, Plant Foods, and many other accessories. To read this catalogue is an education in itself; the greatest difficulty will be trying to decide on what you can put into your garden. We promise you that any garden will be too small.

Finally, let us look at a fine nursery catalogue just loaded with fine-colored pictures of what can be planted on a well-designed property. Hardy plants for Canadian Homes by the McConnell Nursery Co., Do you like roses? Their Tropicana pictured on the cover will do your heart good. It is the only rose to win 13 international awards. On pages 4 to 25 will be found some of the finest pictures of roses available to gardeners and especially the chosen few who delight in their rose garden. Begonias for shady places have also been featured, to say nothing of the hardy garden Lilies and the Cactus Dahlias. Just send for the catalogue and see for yourself.

Happy gardening for 1963.

Next month

The Macdonald Farm Journal will feature articles on:

Careers in • Agriculture
• Home Economics
• Education

This will be a "special issue of the Macdonald Farm Journal in which we'll be providing the answers to the questions:

How much does it cost to go to college today?
What about financial assistance?
What are entrance requirements?
What you can study at college?

Be sure not to miss it!

WHAT'S NEW IN FILMS?

TOURIST GO HOME

"Tourist Go Home" is a satirical film about the need for courtesy towards visitors. It's also about a multi-million dollar business for Canada, in which everyone shares ultimately, and which depends on everyone's efforts to succeed.

The mythical "Anti-Tourist League of Canada" is obviously an underground movement, but well organized and with a definite philosophy: to keep people from travelling about and enjoying themselves. The lakes, rivers and highways must be cleared of visitors. It is an uphill battle, but the "League" has its moments of encouragement. The members find just about every example of things done or left undone which would annoy and frustrate you, the tourist. They are assured that they have the unwitting support of many Canadians in their drive to rid this lovely land of the tourist. Hilarious or tragic, depending on your point of view!

16mm. Colour 25 mins. Produced by the National Film Board

QUALITY OF A NATION

"A nation is an association of reasonable beings, united in a peaceful sharing of the things they cherish; therefore, to determine the quality of a nation, you must consider what those things are . . ."

Beginning with a series of lively dramatizations of statements made by pre-Confederation statesmen, the film moves on to an examination of things Canadian in the light of the present, and more important, of the future.

Audiences will see and hear eight distinguished contemporary Canadians (Vincent Massey, "Rocket" Richard, etc.) each of whom suggests Centennial projects and celebrations of lasting value. The scenes illustrating the remarks of these well-known Canadians give a kaleidoscopic impression of Canada as it is, and other sequences indicate that we still have time to do those things "which any nation ought to do before it is a hundred years old". Quality of a Nation achieves its purpose — it is an inspirational film.

16mm. Colour 29 mins. Produced by Crawley for the E. B. Eddy Co.

May be borrowed from the Extension Film Library, Macdonald College, by any responsible group of individual **FREE OF CHARGE.** Transportation charges to be paid by the borrower.

That's how Purina "Chows" were born

Did you ever wonder why the rations in the Red and White Checkered bags and bulk trucks are called Purina "Chows"? For the answer to that one we'll have to go back to the war of 1914-18.

William Danforth, then president of Ralston Purina, was in Europe as the leader of a Y.M.C.A. group attached to the U.S. 3rd Division. His group moved with the troops, even to "the front"; supplying apples, cigarettes, hot chocolate . . . they often had the job of taking the meals themselves to the front line troops.

Will Danforth lived the great hardships these boys faced; he knew long hours, sleepless nights and cold, wet trenches — he knew how terribly important food was to the fighting man. The soldiers called food "Chow", and Will knew the joy that came to the weary, mud streaked faces when he shouted, "Chow time!" When spring came to France, Will looked across the miles of farmland that war had torn and mauled and realized that the only plowing these acres would have again would be zig-zag miles of trenches; the only crops, bomb-bursts.

Will knew that the farmers this side of the Atlantic had to produce more. To his friends at Ralston Purina Company he wrote, "Work Hard, Pray Hard, Play Hard — we have a Victory to win!"

The Ralston Purina Company saw the job that had to be done—to find better ways to produce more and better meat, milk and eggs. Purina had built a large Analytical Laboratory at St. Louis in 1916, for testing of chemical analysis in feedstuffs, and they began working on the problem. (They've been working on it ever since!).

Will Danforth came back from the wars and returned to the Red and White Checkerboard he loved so well, and saw the rations which were being developed by Purina's Research Laboratory . . . some of them had been developed as a result of his request for more food for the dough-boys. It seemed only natural to him that they should be called "Chows". Purina's first Pig Feed had been introduced in 1917. Will Danforth called it "Purina Pig Chow" and the name stuck. Purina Rations are now called "Chows" all around the world.

Purina's leadership in ration research has stuck, too! In 1920 Purina opened its Biological Laboratories and were able to test the nutritional value of feedstuffs on birds and animals. In the twenties when the mystery of animal and poultry nutrition began to unfold, Purina was able to collate fundamental findings of government and college research stations and find ways of including these necessary ingredients in the rations in the Red and White Checkered bags.

Purina people are working today; still developing new and better ways to feed poultry and livestock. Their reason is still the same; to find new and better ways to produce more and better meat, milk and eggs.

If you have the ability to "Work Hard, Pray Hard, Play Hard" . . . you would fit right in with Purina People. When you are selecting a life's livelihood, think of the Ralston Purina Company, Limited . . . we're a company dedicated to helping the citizens of tomorrow's world have a better way of life.

Canadians who want bigger profits tomorrow feed Purina Chows today.

RALSTON PURINA COMPANY, LIMITE
WOODSTOCK TORONTO WHITBY MONTREAL SAINT JOH